

Name Key

Date \_\_\_\_\_

## 201 Radian Practice

Rewrite each degree measure in radians and each radian measure in degrees.

1.  $120^\circ$

$$120 \left( \frac{\pi}{180} \right)$$

$$\boxed{\frac{2\pi}{3}}$$

2.  $-15^\circ$

$$-15 \left( \frac{\pi}{180} \right)$$

$$\boxed{-\frac{\pi}{12}}$$

3.  $-225^\circ$

$$-225 \left( \frac{\pi}{180} \right)$$

$$\boxed{-\frac{5\pi}{4}}$$

4.  $\frac{5\pi}{6} \left( \frac{180}{\pi} \right)$

$$\boxed{150^\circ}$$

5.  $\frac{79\pi}{90} \left( \frac{180}{\pi} \right)$

$$\boxed{158^\circ}$$

6.  $\frac{-\pi}{4} \left( \frac{180}{\pi} \right)$

$$\boxed{-45^\circ}$$

Convert to degrees, minutes, and seconds. Round to the nearest second.

7.  $35.61^\circ$

$$.61(60)$$

$$36 .6(60)$$

$$\boxed{35^\circ 36' 36''}$$

8.  $14.27^\circ$

$$.27(60)$$

$$16.2$$

$$.2(60)$$

$$12$$

$$\boxed{14^\circ 16' 12''}$$

9.  $18.05^\circ$

$$.05(60)$$

$$\boxed{18^\circ 3' 0''}$$

Convert to decimal degrees, round to the nearest tenth.

10.  $12^\circ 6' 32''$

$$12 + \frac{6}{60} + \frac{32}{3600}$$

$$\boxed{12.1^\circ}$$

11.  $80^\circ 10' 5''$

$$80 + \frac{10}{60} + \frac{5}{3600}$$

$$\boxed{80.2^\circ}$$

12.  $112^\circ 42' 19''$

$$112 + \frac{42}{60} + \frac{19}{3600}$$

$$\boxed{112.7^\circ}$$

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PERIOD

10-8

## Skills Practice

## Equations of Circles

Write an equation for each circle.

1. center at origin,
- $r = 6$

$$x^2 + y^2 = 36$$

2. center at
- $(0, 0)$
- ,
- $r = 2$

$$x^2 + y^2 = 4$$

3. center at
- $(4, 3)$
- ,
- $r = 9$

$$(x-4)^2 + (y-3)^2 = 81$$

4. center at
- $(7, 1)$
- ,
- $r = 12$

$$(x-7)^2 + (y-1)^2 = 144$$

5. center at
- $(-5, 2)$
- ,
- $r = 4$

$$(x+5)^2 + (y-2)^2 = 16$$

6. center at
- $(6, -8)$
- ,
- $r = 5$

$$(x-6)^2 + (y+8)^2 = 25$$

7. a circle with center at
- $(8, 4)$
- and a radius with endpoint
- $(0, 4)$

$$(x-8)^2 + (y-4)^2 = 64$$

8. a circle with center at
- $(-2, -7)$
- and a radius with endpoint
- $(0, 7)$

$$(x+2)^2 + (y+7)^2 = r^2$$

$$2^2 + 14^2 = r^2 = 200$$

$$(x+2)^2 + (y+7)^2 = 200$$

9. a circle with center at
- $(-3, 9)$
- and a radius with endpoint
- $(1, 9)$

$$(x+3)^2 + (y-9)^2 = r^2$$

$$(1+3)^2 + (9-9)^2 = r^2$$

$$16 = r^2$$

$$(x+3)^2 + (y-9)^2 = 16$$

10. a circle whose diameter has endpoints
- $(-3, 0)$
- and
- $(3, 0)$

$$C(0, 0) \quad r = 3$$

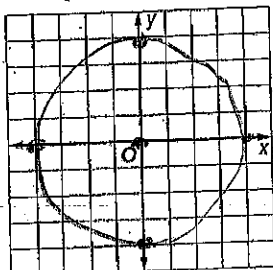
$$x^2 + y^2 = 9$$

Graph each equation.

11.  $x^2 + y^2 = 16$

C(0, 0)

r = 4



12.  $(x-1)^2 + (y-4)^2 = 9$

C(1, 4)

r = 3

